

Improving Health Professionals' Access to Information

The concept of ready access to a comprehensive store of recorded knowledge has for centuries tantalized the scholar and investigator. To achieve fingertip control of the literature, of all that is known about the causes, treatment, and prevention of heart disease, cancer, and stroke, and to make this knowledge available to researchers, educators, and practitioners, is an objective to which this Subcommittee wholeheartedly subscribes. Traditionally, the medical library plays the central role in the interchange of published biomedical information.⁵

Dr. Michael DeBakey, *Chairman, President's Commission on Heart Disease, Cancer, and Stroke, 1965.*

Introduction: The Problem of Access

A little over two decades ago, the medical libraries of this Nation were unable to provide effective access to the results of biomedical research. Recognizing this, the President's Commission on Heart Disease, Cancer, and Stroke noted in 1965 that:

The marshaling of resources, public and private, to insure better health for the American people has been a phenomenon of the post-World War II decades....Attention has been called repeatedly to a significant exception to this commendable development. Those problems which are associated with the communication of new scientific knowledge, both to researchers who must use it still further to explore the unknown, and to practitioners who must have access to it to improve the Nation's health, are so critical as to warrant our most serious attention.⁶

The Commission recommended that:

The National Library of Medicine should support and assist the development of improved medical library services in the United States by an extramural program acting through grants and contracts in areas of medical library facilities, resources, personnel, and secondary publications. The Library should also conduct forward-looking research and development for the purpose of increasing the effectiveness of medical library service throughout the Nation.⁷

Much has been accomplished by the National Library of Medicine in the intervening years. With assistance provided under authority of the 1965 Medical Library Assistance Act, medical libraries have expanded and improved their facilities; new libraries have been built; strong collections have been developed; staffs have been trained; shared programs among libraries have been formalized through the Regional Medical Library network; and new information technologies have been introduced to automate key library services.

Many of these technologies have stemmed from the general advances of information science and computers, tailored or adapted to the needs of health care. Other improvements have emanated from the research and development laboratories of the NLM. Foremost among them has been the MEDLARS/MEDLINE network of computerized

databases containing more than ten million references to the world's biomedical literature. Every day, thousands of health researchers, educators, practitioners, and students access these databases and obtain needed information through the services of medical libraries. The networking of these online databases, supported by the nation's medical libraries—with NLM at the apex of a broad national pyramid—has been a great success.

Today in 1989 we are faced with new challenges as critical as those of the 1960's. A strong library network has been built, yet many health professionals, perhaps the majority, are unaffiliated with a medical library and thus do not have ready and timely access to the vital health information they need. With the availability of advanced personal computers and increasingly good public communications networks, the time has come to reach out to include all individual American health practitioners and to see that they have ready access to NLM's information services. Congress has recognized this need.

In October 1987, the Senate Committee on Appropriations, in its report on the Departments of Labor, Health and Human Services, and Education and Related Agencies Appropriation for 1988, stated in its section on NLM:

The Nation's immense investment in biomedical research can be maximized only if there are efficient channels for disseminating research results, and these the library provides through its computerized MEDLARS services and the regional medical library network. The Committee believes that this program should be expanded to reach all American health professionals, wherever located, so they will be able to take advantage of the library's information services. The Committee

*encourages the NLM to develop an outreach program aimed at science and technology transfer of the latest scientific findings to all health professionals including psychologists, nurse midwives, and nurse practitioners in rural communities and other areas...*⁸

In December 1987, the National Library of Medicine Act was amended to add to the functions of the Library:

*Publicize the availability of the above products and services of the National Library of Medicine.*⁹

In 1988, the Senate Committee on Appropriations affirmed the importance of increasing the Library's outreach and access programs, and expressed concern

*that hospitals undergoing financial hardship, especially small rural hospitals, may be unable to commit scarce resources to maintaining their libraries...and...that health care professionals...in isolated areas, who are most likely to lack access to recent scientific and technological findings, are also least likely to have access to such libraries.*¹⁰

The Committee requested

*that the NLM develop an active outreach program to disperse this information to rural and remote health care professionals, and devise a method of notifying these professionals of the availability of up-to-date information.*¹¹

In response to this charge, the NLM Board of Regents' Planning Subcommittee convened a Panel on Outreach expressly for the purpose of formulating a plan to guide the Library's efforts to improve access to its information

services.* The Panel is chaired by Dr. Michael DeBakey, a long-time proponent of improved medical** information services and the former chairman of the 1965 President's Commission on Heart Disease, Cancer, and Stroke. The Regents sought a plan that would address the need to increase the awareness of prospective users; suggest strategies for removing obstacles to access; and propose mechanisms to insure the maximum relevance of NLM's diverse array of information products and services. A new and revitalized partnership with the Regional Medical Library Network has emerged as the backbone of the plan; and modern computer and information technology is the sinew that gives it strength.

The Panel's recommendations, along with estimated incremental budget requirements (using FY 1989 as a base), are presented in the following sections:

- The individual and the RML network.
- Strengthening hospital access to national information sources through resource grants to small hospital libraries, support for the Integrated Academic Information Management Systems (IAIMS) program, and participation in the emerging national electronic communications networks, such as NSFNET.
- Expanding training, fellowships, and demonstration grants.
- Expanding intramural R&D at NLM, including studies about the users and uses of its products and services, and the development of new or enhanced information products and services to meet the needs of health professionals.

* The Outreach Panel is composed of 31 leading medical educators, scientists, health professionals, medical librarians, and marketing specialists (see Appendix for panel roster). The Panel met three times between November 1988 and March 1989.

** In this report "medical" is meant to be generic and inclusive of all health professions.

1. The Individual and the Regional Medical Library Network

The Challenge. The RML Program, funded under the Medical Library Assistance Act and its subsequent renewals, has played a vital role in improving access by creating a functioning network of medical libraries serving all fifty states.

The networking of medical libraries was a success; the next step, not accomplished to date, is for NLM and all of the libraries in the RML network (RMLs, resource libraries, and local libraries) to establish direct contact with the whole spectrum of health professionals who are the ultimate users of biomedical information services, thus incorporating the *individual* health practitioner within the *institutional* network.

Twenty years' experience has proved the soundness of the strategy that led to the development of a national system of RMLs, each with facilities of sufficient depth and scope to support the services of other medical libraries in the region it serves, and providing health professionals with effective, timely access to biomedical information. A new and revitalized RML Program must offer high quality products and services that satisfy all health professionals' needs, efficiently and at a reasonable cost, and that continue to serve an ever-changing market. In a new alliance, RMLs and the libraries in their regions can act as representatives and agents for NLM information products and services. Under NLM leadership, the RMLs must be able to assist NLM in developing such products and services and in creating a marketing strategy and "field force" for distributing them. The RMLs and their constituent libraries will also supply NLM with feedback and information concerning how information is being used, new ideas for products and services, etc. Information and ideas should flow both out from NLM through the RMLs and network li-

The next step is for NLM and all of the libraries in the RML network to establish direct contact with the whole spectrum of health professionals.